

Anal scutum strongly narrowed caudad, caudally convex, with a median incision leaving a rounded lobe on each side, just cephalad of which on each lateral margin are two large setigerous tubercles. Anal valves with mesal borders strongly elevated and margined. The anal scale is caudally acute, on each side of the caudal apex a long stout subcylindrical tubercle exceeding the tip of the median region.

The telopodites of the gonopods of the type are broken off and lost.

Length about 70 mm. ; width 11·6 mm.

Locality.—Zanzibar (*Dr. C. Pickering*).

Type, Mus. Comp. Zool. (No. 4674).

VI.—*New and little-known Species of Ants from various Localities.* By W. C. CRAWLEY, B.A.

Subfamily I. *PONERINÆ*, Lep.

*Myrmecia rufonigra*, sp. n.

♂ major. Length (without mandibles) 11 mm. ; length of mandibles 2·0 mm.

Black ; mandibles dark red-brown, apical two or three joints of funiculus dark red, the rest of antennæ, the legs, mesonotum, epinotum, and petiole red. The mesonotum has a dark patch on each side and the postpetiole has a dark band round its base, projecting on the upper surface into a conical patch extending nearly halfway across the node.

Antennæ without hairs, legs with abundant fine exserted hairs ; the whole of body with similar grey pilosity, which is longer on the clypeus and mandibles. Gaster, second node, and legs with a fine grey pubescence.

Mandibles as long as head, with four large teeth besides the apical tooth, and smaller teeth between. External border feebly concave. Head slightly broader than long, narrower at occipital border, which is straight, not so broad in front proportionately as in *pilosula* ; clypeus widely emarginate. Second joint of funiculus nearly twice as long as the first, the remaining joints decreasing gradually till the apical. The scapes do not quite reach the occipital border. Shoulders of pronotum evenly rounded ; meso-epinotal suture distinct ; epinotum presenting an even curve, barely showing a base and a declivity. First node from above nearly circular, the

anterior border flattened. In profile it is cubic, with a very short peduncle bearing a sharp tooth beneath; it is slightly higher in front, where it descends vertically to the peduncle; second node nearly twice as wide as first, shorter and broader than in *pilosula*. Ocelli distinct.

Mandibles shining, with a few small punctures on the outer border, and large ones along the line of the teeth. Entire head coarsely longitudinally rugose, the rugæ becoming broken near the occiput. Pronotum with semicircular rugæ, the central ones becoming longitudinal. Mesonotum less coarsely and more irregularly longitudinally rugose; epinotum coarsely transversely rugose; first node with coarse irregular rugæ, second and gaster without rugæ. In addition, there is a fine reticulate ground-sculpture on the whole body.

♂ minor. Length (without mandibles) 9.5 mm.; length of mandibles 1.5 mm.

More slender than ♀ major. Similarly coloured, but not so bright; the mesonotum is nearly black, and the epinotum darker than in the ♀ major, and the black band on postpetiole covers nearly half the node. Scapes almost reach the occipital border. Ocelli distinct. Pilosity and pubescence similar to that of the ♀ major; sculpture similar, but finer.

2 ♀ ♀, Townsville, Queensland, July 1902 (*F. P. Dodd*).

Types in my collection.

Group *pilosula*.—Coloured somewhat like the race *mediorubra*, For., but the scapes are shorter and the mandibles dark, not yellow as in *mediorubra*. The sculpture is coarser than in *pilosula*.

#### *Rhytidoponera reticulatum*, For.

♂ (hitherto undescribed). Length 7.0 mm.

Bright castaneous, shining; antennæ and teeth of mandibles darker.

A short and fine pilosity scattered over whole body; legs with exserted hairs, underside of scape with a row of similar hairs, funiculi hairy, with both exserted hairs and pubescence.

Mandibles broad, with numerous small teeth. Clypeus arched, the anterior border convex. Head narrowed behind eyes, which are large and prominent, occupying more than three-quarters of sides of head. Scape two-thirds as long as second joint of funiculus, which is the longest joint. First joint as broad as long; third, fourth, and fifth subequal, thence diminishing gradually to the apical, which is half as long again as the penultimate.

Promesonotum arched, metanotum very prominent. Epinotum feebly curved. Node from above long and narrow; the anterior quarter is divided from the rest by a transverse ridge beyond which the node narrows and widens again to the base. In profile it is low, rising to its highest point behind, the projecting ends of the above-mentioned ridge forming a break at the anterior quarter. Gaster deeply constricted between the first and second segments.

Mandibles finely striate. Clypeus and rest of head coarsely and irregularly longitudinally rugose. Promesonotum and metanotum with coarse, shining, reticulate punctures, which tend to become longitudinal in direction on the latter part of mesonotum and on the metanotum. Sides of thorax and the epinotum irregularly longitudinally rugose, the node slightly roughened, gaster smooth. Coxæ and femora faintly reticulate.

Northern Territory (*Hill*, no. 671).

Type in the British Museum.

The ♀ ♀ taken with the ♂ answer perfectly to Forel's description.

*Leptogenys (Lobopelta) conigera*, Mayr., race *exigua*, st. n.

♀. Length 7.0 mm.

Dark brown, shining; mandibles, antennæ, promesonotal suture, and declivity of epinotum castaneous brown; legs similarly coloured, but brighter, almost red; borders of segments of gaster and the apical segments castaneous brown; petiole less deep brown than body.

Body with a fine yellowish pilosity, thickest on gaster. Antennæ and legs pilose. Four or five extremely long hairs on scape.

Mandibles with four teeth, one on apex, another at extreme base, and two between, with indications of a few smaller irregular teeth in between. A groove runs from the upper surface of base and curves to the outer border, finishing at apex. Eyes large, in front of middle of sides of head. Clypeus has a high and sharp median carina; the extreme apex of clypeus is truncate.

Head as long as broad, broadest at base of mandibles, sides feebly convex, occipital border slightly concave. Scape passes the occipital border by a little more than its thickness. Second joint of funiculus longer than first, the joints thence diminishing until the apical. Thorax in profile slightly depressed at mesonotum. Base of epinotum nearly twice as

long as declivity, the angle joining them rounded. Node higher than epinotum and as high as base of gaster; from above somewhat wedge-shaped, twice as wide behind as in front; in profile wider than high, highest posteriorly, where it is vertical; convex in front. There is a considerable constriction between first and second segments of gaster.

Mandibles with both large and small scattered punctures. Clypeus rough, with larger irregular punctures. Head with spaced small piligerous points; thorax with similar points, but more widely spaced; declivity of epinotum smooth and shining. Node and gaster with a few points.

Darwin, Northern Territory, Australia (*G. Hill*, no. 607), 1/7/15.

Type in the British Museum.

*Odontomachus ruficeps*, Sm., race *acutidens*, For.

♂ (hitherto undescribed). Length 6.5 mm.

Entirely castaneous; funiculus brown-yellow; wings iridescent, tinged with yellow; nervures brown-yellow.

A few hairs on the head, thorax, pedicel, and gaster; whole body (including legs and antennæ) covered with a thin pubescence.

Eyes occupy more than  $\frac{3}{4}$  of the sides of head. Antennæ similarly formed to *hæmatoda*, Ltr., and fully as long as whole body. The two surfaces of epinotum equal, the declivity feebly concave, the angle joining them rounded and low. Node conical, as in *hæmatoda*. Gaster long and curved, slightly constricted between first and second segments.

Sculpture similar to that of *hæmatoda*, but much fainter, and on the scutum the sculpture is transverse or, at least, diverging from the centre line, whereas in *hæmatoda* it is more or less longitudinal. The epinotum is similarly sculptured to the scutum—*i. e.*, quite superficially, not coarsely rugose as in *hæmatoda*.

♀ (hitherto undescribed). Length (excluding mandibles) 10.0 mm.; length of mandibles 1.5 mm.

Except for sexual differences is very similar to the ♂ major. In the ♀ minor (length 6.5 mm.), the spine on the node is almost straight, but in the ♂ major, and especially in the ♀, the spine has a decided backward bend.

The pronotum is transversely striate, the striæ encircling the sides and the central ones doubling back on themselves; the scutum is longitudinally striate, also the scutellum, but much more finely than the scutum. Epinotum is more

coarsely transversely striate, as in the ♀, and the node has faint striæ encircling the base.

Wings are iridescent, with a yellow tinge; nervures yellow-brown.

Koolpinyah, Northern Territory, 6/4/1915 (*Hill*).

Types in the British Museum.

Dr. Forel has seen specimens of the ♀ ♀, and confirms my identification of the subspecies.

Subfamily III. *MYRMICINÆ*, Lep.

*Meranoplus aureolus*, sp. n.

♀. Length 2.2 mm.

Head, thorax, and pedicel dark chestnut-brown; gaster bright orange; mandibles, legs, and antennæ intermediate in colour between head and gaster.

Mandibles 4-dentate. Anterior portion of clypeus hollowed out, so as to form two carinæ at each side, ending in two teeth at anterior border; the posterior portion flattened.

Head very slightly broader than long, broadest at occiput, narrowed in front. Antennal scrobes extend just beyond the eyes, which are placed well behind the middle of sides. First joint of club of antennæ equals the following two together. Occipital border widely emarginate. Frontal area distinct, crescent-shaped, shining.

Promesonotum broader than long; the lateral festoon is fairly straight for the anterior two-thirds, ending in three pointed projections, the second longest, and the third pair encircling the node. Shoulders of pronotum with a triangular projection turned forwards. Epinotum sloping, armed with two long, narrow, pointed spines.

Node slightly broader than long, somewhat wider in front, the anterior border rounded; in profile the anterior border is straight.

Gaster cordate.

Mandibles striate, clypeus with longitudinal ridges.

Head: anterior quarter with longitudinal ridges which gradually become reticulations until when the occiput is reached the sculpture consists of coarse reticulate punctures, shining at the bottom.

Promesonotum sculptured similarly to the occiput, as is also the node, but in the latter the punctures are more elongate.

Gaster subopaque, with a fine reticulate ground-sculpture.

There is also a fine reticulate ground-sculpture on the head, with the exception of the clypeus and occiput.

This strikingly coloured species was taken by Mr. Hill (no. 604) at Koolpinyah, Northern Territory of Australia. The nest was in a small hole on a gravel ridge, and had neither crater nor mound.

Type in the British Museum.

*Acromyrmex octospinosa*, Reich., var. *pallida*, nov.

♂ major. Entirely pale yellow; antennæ deeper yellow, teeth of mandibles dark brown or black.

♂ minima. Slightly deeper in colour than the ♂ major.

In both ♂ major and minima the spines are somewhat thinner and shorter than in the type, but otherwise, with the exception of the colour, the new variety is similar to the type.

Issororo, British Guiana, 1918 (*Bodkin*, no. 422). Nest in soil under a rock. The ants were associated with three new species of coccid.

Types in the British Museum.

Subfamily IV. *DOLICHODERINÆ*, For.

*Iridomyrmex obscurus*, sp. n. (Fig. 1.)

♀. Length 3.5 mm.

Dark brown, with a faint metallic sheen; mandibles, clypeus, scapes, tibiæ, tarsi, and articulations of legs castaneous.

Fig. 1.



Profile of thorax of *Iridomyrmex obscurus*, sp. n.

Clypeus, front, occiput, pronotum, node, and base of gaster with groups of stiff hairs; tibiæ with exerted hairs, antennæ with none. Whole body covered with a fine cinereous pubescence.

Head longer than broad, wider behind than in front, widest at level of eyes, which are placed just behind the middle of

sides and are large and flat; occipital border widely and feebly concave.

Mandibles long, with seven large teeth, followed by a few minute ones along the first half of terminal border. Anterior border of clypeus sinuate. Antennæ rather short, the first joint of scape slightly longer than the following one, the remaining joints gradually diminishing to the apex. Scapes pass the occiput by a little more than their width.

Promesonotum in profile evenly arched, with hardly any break between the two segments. Mesoeipinotal incision deep, the epinotum evenly rounded, the declivity longer than the base (*v.* fig. 1). Node squamiform.

Mandibles shining and closely punctured. Whole body covered with a fine reticulation, hidden under the pubescence except under a high power.

Koolpinyah, Northern Territory, Australia (*Hill*, nos. 662 and 663). Taken in company with Membracids on *Eucalyptus*, and also on cooked meat at a native camp.

Type in the British Museum.

This species does not appear to correspond with any published description.

#### Subfamily V. *CAMPONOTINÆ*, For.

##### *Rhizomyrma marshalli*, sp. n. (Figs. 2 & 2a.)

♀. Length 2.0 mm.

Pale yellow, like a small ♀ of *Lasius flavus*. Some specimens are slightly darker.

A few long yellow hairs on clypeus, a cluster on posterior portion of pronotum, some shorter ones on mesonotum and base of epinotum and on the edges of the segments of gaster. Head, antennæ, legs, and gaster covered with a fairly dense whitish pubescence.

Head very short, broader than long, broadest at base of mandibles, the anterior third of sides fairly straight, thence gradually narrowing and forming rounded angles behind; occipital border feebly concave. Mandibles with three fairly large teeth. Anterior border of clypeus feebly sinuate. Frontal area distinct, triangular. Eyes situate at anterior third of sides of head, consisting of two to four minute ommatidia. Antennæ 10- or 11-jointed; the second joint of funiculus is not a complete joint, being divided on one side only—the outer,—and incapable of flexion; the first joint of funiculus longer than broad, the second so-called joint small,

as long as broad, joints 3-7 broader than long, the length of all about equal, the breadth increasing with each joint, the eighth and ninth barely broader than long, and the terminal joint equalling the four preceding ones. The scapes reach the occipital border.

Thorax somewhat similar to the description of *goeldii*, For., but broadest at pronotum, which is broader than long. Epinotum broader than long, in profile as high as mesonotum, the base rounded, the declivity feebly concave, much longer than base.

Scale seen from front, flat, straight along the top, the sides sloping outwards slightly from the superior border, becoming broadest in the middle of the sides, thence narrowing to the base. Legs short and stout, gaster large and oval.

Mandibles smooth and shining; head subopaque, finely shagreened; thorax and gaster similarly shagreened, but

Fig. 2.



Fig. 2 a.



Fig. 2.—Head of *Rhizomyrma marshalli*.

Fig. 2 a.—Funiculus of antenna of *Rhizomyrma marshalli*.

more shining. Declivity of epinotum very smooth and shining.

Barbadoes, 1914 (*J. R. Bovell*, no. 346). In soil round a sugar-cane root.

I have named this species after my friend Dr. Guy Marshall, through whom the ant came into my hands.

This genus, originally founded by Forel (*Tr. Ent. Soc. Lond.* iv. 1893, p. 347) as a subgenus of *Acropyga*, appears hitherto to have been unrepresented in British collections. Professor Emery, who kindly examined a cotype for me, points out that the head is much shorter in this species than in the other American species of which the ♀ is known. Several species of this genus have antennæ whose joints vary in number; but not having had an opportunity of examining many other species, I am unable to say whether the structure of the second joint of the funiculus is unique in *marshalli*.



It exists in all the specimens of the new species that I have examined (viz. twenty-two), and can readily be seen under a fairly high power of the porro-prism binocular, but is much clearer when the funiculus is mounted in Canada balsam.

Type in the British Museum.

*Camponotus (Myrmotrema) troglodytes*, For.,  
 race *assumptionis*, st. nov.

♂ major. Length 7·0–8·5 mm.

Dark red; gaster brown, the first segment often reddish; borders of segments testaceous.

Head broader than long, widest at upper border of eyes, narrowing rapidly in front of eyes, which are placed less than the length of an eye from the occipital border. Posterior half of clypeus raised, anterior half depressed, the anterior border widely and feebly emarginate, with serrate edge. Mandibles 5-toothed. Scapes extend about one-quarter of their length beyond the occipital border, which is feebly concave.

Thorax: line of back unbroken, as in *troglodytes*. Declivity of epinotum longer than the base, with which it forms a rounded angle; it is slightly concave at base and not bordered. The angle between the two faces greater than a right angle.

Dull; gaster somewhat shining. Whole body with a fine reticulate ground-sculpture, finest on gaster. Mandibles with close clean-cut punctures, small; clypeus with irregular larger ones. Rest of head with irregular shallow punctures, as in *foraminosus*, which tend to disappear at the occiput.

Thorax has only a few faint punctures here and there.

Pilosity: head and thorax bear a few stiff yellowish hairs; declivity of epinotum edged with six to eight long, stiff, white bristles; scale and borders of segments of gaster edged with similar white bristles, which on the gaster are often yellowish. In addition the body is scattered with fine golden adpressed hairs, which on the gaster are sufficiently numerous to give it a golden sheen. Legs and scapes without erect hairs.

♂ minor. Length 5·3 mm.

Altogether paler, head narrower, scapes passing the occiput by nearly half their length; fall of declivity of epinotum less abrupt. Otherwise like ♂ major.

Assumption Islands (Aldabra), 1916 (*P. R. Dupont*, no. 322).

I originally described this ant as a race of *foraminosus*, For., but Santschi considers it a race of *troglodytes* (which I

have not had an opportunity of seeing), and I therefore follow his opinion. From the description of *troglydytes* the new race would appear to differ from the type in the ♀ major by the form of the head, which is broader than long (as broad behind as long in *troglydytes*), by the greater length of the scapes, the shape of the epinotum, the pilosity, and colour. Santschi tells me that *assumptionis* has the colour of the var. *rhodesiana*, For., but the latter has a slight metanotal incision, whereas the back of *assumptionis* is unbroken.

Types in the British Museum.

*Camponotus (Myrmosphincta) suffusus*, Sm.,  
subsp. *bendigensis*, For.

♂ (hitherto undescribed). Length 8.5 mm.

Dark brown; first four joints of funiculus dark brown, the remainder yellow; apical borders of segments of gaster testaceous.

Terminal border of mandibles edentate, incised in centre. Second joint of funiculus longer than the first, the remainder gradually decreasing in length till the apical, which is slightly longer than the penultimate. Eyes occupy one-third of sides of head. Anterior border of clypeus convex. Frontal groove deeply impressed, reaching the anterior ocellus. Scale low and broad, flattened and oblique in front. Wings clear.

Dull; whole body with a fine reticulate ground-sculpture.

Pilosity sparse; a few stiff hairs on scutellum and apical segments of gaster, none on antennæ or legs. Pubescence almost nil.

Sidney, New South Wales (*A. H. Arnold*), 1913.

Type in my collection.

*Polyrhachis queenslandica*, Em., ♂ ♀ ♀.

*Polyrhachis delicata*, Crawley, Ann. & Mag. Nat. Hist. (8) xv. 1915, p. 238.

♀ (hitherto undescribed). Length 8.0 mm.

Dark reddish brown; mandibles, anterior half of clypeus, frontal area, and space between the bases of antennæ red; remainder of head blackish brown; centre of scutum, the scutellum, and bases of segments of gaster brown, the rest of thorax red; apical six joints and the apices of the remaining joints of funiculus reddish yellow; the rest brown, also the scape with the exception of the apex and base. Nervures and stigma brownish yellow.

Head and thorax as in ♀ with sexual differences. Spines of epinotum and scale somewhat shorter and blunter.

Dull, gaster shining. Sculpture somewhat coarser than in ♀, assuming on the dorsum of thorax a tendency to run in a longitudinal direction.

A few hairs on head, thorax, and gaster, as in ♀. A thin grey pubescence on gaster.

♂ (hitherto undescribed). Length 5.5 mm.

Uniform dark castaneous brown; mandibles, clypeus, antennæ, and legs yellow.

Eyes very prominent, occupying one-half the sides of head. First joint of funiculus somewhat gibbous. Scale low, broad, and rounded in profile. Body with a fine superficial ground-sculpture.

Darwin, Northern Territory, Australia (Hill).

Types in the British Museum.

After comparison with a cotype, which the author kindly sent me, there is no doubt that the insect described by me in 1915 as *P. delicata* is none other than Emery's species. Mr. Hill found a nest of these ants, which is made of a fragile carton between two leaves fastened together. The whole nest is not more than 4 inches square and about  $\frac{3}{4}$  inch in the deepest part.

*Polyrhachis (Camponyрма) micans*, Mayr., race *ops*, Forel,  
var. *rufa*, nov.

♀. Differs from *micans* in colour, which is black, with the mandibles, clypeus, frontal area, anterior portion of frontal carinæ, cheeks at base of mandibles, antennæ, legs, scale, and gaster light red. The upper portion of the declivity of epinotum below the teeth and the teeth themselves are red, but not so bright as the other red portions.

Thorax formed like that of the race *ops*—i. e., narrower than in *micans*; the anterior border of clypeus not so deeply concave and the teeth not so prominent as in *micans*. The teeth on epinotum much shorter and blunter than in *micans*, and the inner spines on the scale are somewhat shorter and more parallel, while the lateral spines are reduced to mere triangular teeth.

This variety would appear to differ from the var. *dentinasis* recently described by Santschi by its red colour and the even greater diminution of the lateral spines of the scale.

Townsville, Queensland, 1902 (*F. P. Dodd*).

Type in my collection; cotypes in British Museum.